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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Donald B. Harris

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HALL, PRIDDY, MYERS & VANDE SANDE
10220 River Road
Suite 200
Potomac, MD 20854

EXAMINER

FISCHMANN, BRYAN R

ART UNIT

PAPER NUMBER

3618

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,173

Applicant(s)

HARRIS ET AL.

Examiner

Bryan Fischmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-9 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) 2, 6-9, 16, 17 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 12-15, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Acknowledgements

1. The election dated 03-24-2005 has been entered.

Election/Restriction

2. In the restriction requirement dated 05-14-2004, the Examiner required a species election for three species of "Category A" – Electrical Power Generator for Power Source and two species of "Category B" – Interface Module to Power Module Connection.
3. In response, the Applicant elected Species II (Fuel Cell) for Category A and Species I (umbilical connection) for Category B in the election dated 03-24-2005, with traverse.

The Applicant stated that claims 1, 3, 12-15 and 18-20 correspond to Species II of Category A and claims 1-3, 6-9 and 14-20 correspond to Species I of Category B.

4. Regarding the claims identified corresponding to Category A, the Examiner generally agrees with the identified claims, except to note that while claim 20 "reads" on Category A, claim 20 does not read on the elected species of Category B. Regarding the claims identified corresponding to Category B, the Examiner generally agrees with the identified claims, except to note that claims 2, 6-9, 16 and 17 correspond to non-elected species of Category A and that claim 20 corresponds to non-elected Species II of category B.

Accordingly, claims 2, 6-9, 16, 17 and 20 are withdrawn from consideration, as being drawn toward non-elected species. Note that claims must "read on" both the

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elected species for Category A and Category B, and not merely “either category” as apparently set forth by Applicant in the election.

5. Regarding the traversal of the species election, the Applicant maintains in comments included with the election that the Examiner has failed to meet a “first prong of the test enumerated by the MPEP guidelines, separate claims must claim separate inventions which are both ‘independent’ and ‘distinct’ and “in the second prong of the test, the Examiner MUST show, by appropriate explanation one of the of the following”...(A) Separate classification of the ‘inventions of the claims...(B) Separate status in the art when the inventions are classifiable together...(C) That a different field of search is required...”.

The Examiner responds to the above as follows:

A) Firstly, the Examiner notes that the terms “first prong” and “second prong” are not set forth in the MPEP, as implied by the Applicant. For example, there is a “three prong test” regarding whether 35 USC 112 6th paragraph is invoked, as set forth in Section 2181 of the MPEP, but no corresponding “two prong test” regarding restrictions is known to the Examiner. Due to this, it is best understood, that the Applicant is taking “selected portions” of the MPEP, and “formulating” them into a “two prong test” that the Applicant sets forth as being the “mandatory method” of formulating restrictions, or species elections, that is not set forth as such in the MPEP.

B) Regarding the Applicant's “first prong”, that the inventions must be “independent” and “distinct”, the Examiner has set forth in the restriction requirement the assertion that the species of each category are patentably distinct. Regarding the

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term "independent", Section 806.05 and the restriction requirement only requires that the inventions be patentably distinct, not that the inventions are not related, or "independent", as set forth in the election traversal comments by Applicant. Note also that Section 802.11 of the MPEP defines "independent" as; "Not dependant". Additionally note that Section 806.04(b) of the MPEP recites "Species, while usually independent, may be related under the particular disclosure...".

Also, per the restriction requirement for a species election, and Section 809.02(a) of the MPEP, "should Applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence that now of record showing the species to be obvious variants, or clearly admit on the record that this is the case".

Since the Applicant has not explicitly stated that the different species set forth on the restriction requirement are not patentably distinct and are instead "obvious variations" of each other in the comments in the election, the Examiner's assertion that they are patentably distinct and not "obvious variations" remains "in force". Also, the Applicant seems to be taking contradictory positions in the election that the species on the restriction requirement are not patentably distinct, but has not stated that they are instead "obvious variations", as required on the restriction requirement.

C) Regarding the Applicant's "second prong", it is best understood the above categories (A)-(C) of the second prong are from Sections 808.02 of the MPEP, which sets forth a restriction to related inventions. However, the Examiner was not making a

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“restriction requirement” between related inventions, but rather a restriction requirement for a “species election” between related species that are patentably distinct.

As set forth on the restriction requirement, and in Section 809.02(a) of the MPEP, note that:

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over

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the prior art, the evidence or admission may be used in a rejection under 35

U.S.C. 103(a) of the other invention.

Therefore, as set forth above, Applicant is only entitled to prosecution of claims directed to one species, regardless of where a search is required to be made for each species.

Accordingly, the restriction requirement for a species election dated 05-14-2004 is made FINAL. Applicant is requested to either cancel claims drawn toward a non-elected species, or, if appropriate, make the claims drawn toward a non-elected species dependant upon an allowable generic claim.

6. An action on the merits of elected Species II of Category A and Species I of Category B, claims 1, 3, 12-15, 18 and 19 follows.

Drawings

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the features canceled from the claims. No new matter should be entered.

Claims 1 and 12 - a power control module disposed within said housing and coupled to said battery and said electrical power generator and arranged to supply power to the host machine from either said battery or from both said battery and said generator (see 112 1st rejection of claim 1).

Claim 16 – the external combustion engine

Claim 17 – the gas turbine

Claim 19 – the structure that allows an operator to select between manual and automatic operation

Claim 19 - the structure that allows the power control module to be configured to turn the electrical power generator on and off depending on at least one of a battery charge level and a host machine energy consumption rate.

8. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1, 3, 12-15, 18 and 19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claim 1 recites "...a power control module disposed within said housing and coupled to said battery and said electrical power generator and arranged to supply power to the host machine from either said battery or from both said battery and said generator...".

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As best understood from Figure 1 (corresponding to elected species), the power control module, reference number 4, supplies power to a host machine, reference number 31, via the bus (16 - solid lines) from only the fuel cell, reference number 3, and not the battery, reference number 1, which is instead "directly connected" to the host vehicle.

Due to this, Applicant lacks adequate written description that he had possession of the above claim 1 limitation at the time the invention was made.

See also a similar recitation in claim 12.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 3 and 12-15, 18 and 19, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over EVC No. 8305, in view of DE 19641254.

EVC No. 8305 teaches a modular hybrid power source configured to convert to hybrid operation a host machine that is not configured for hybrid operation, the host machine designed and built to operate on electrical power supplied by a removable battery contained in a battery compartment, the host machine having a peak power demand (page 1), comprising:

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an electrical power generator (fuel cell) disposed within said housing and sized to supply less than the peak power demand of the host machine (page 1),

a battery disposed within said housing, said battery sized to supply at least that portion of the peak power demand of the host machine not supplied by the electrical power generator (pages 1 and 4), and

a power control module (control system discussed in pages 3 and 4) disposed within said housing and coupled to said battery and said electrical power generator and arranged to supply power to the host machine from either said battery or from both said battery and said generator (see the 112st paragraph rejection of claim 1)

EVC No. 8305 fails to explicitly teach a housing for the power source, or that the power control module is installed within a housing.

However, note that page 1 teaches that the fuel cell and battery power source or “package” of EVC No. 8305 is designed to replace a traditional battery in a fork-lift truck. Note that unless each component of the power source of EVC No. 8305 were installed separately, a housing would be required. Note also that the recitation of “a compact power package” on page 1 of EVC No. 8305 implies that a housing is present. DE 19641254 teaches a housing (Figures 4 and 5) that allows replacement of a battery power unit (Figure 4) with a “hybrid power unit” (Figure 5), including a power control module (25). A housing with an “integral” power control module for a power source of an electric vehicle is advantageous in that a fuel cell and battery power source may be easily exchanged for an “all electric source”.

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EVC No. 8305 also fails to explicitly teach a remotely mounted operator interface module connected to the power control module, though the upper portion of column 1 of page 4 makes mention of "communication between the operator and the system can be effected...through...a keyboard display unit...".

However, the Examiner takes Official Notice that it is standard for most any vehicle to have a "remotely mounted operator interface module connected to a power control module". Note for example that a standard automobile has a "remotely mounted operator interface module" (gas pedal) connected to a power control module (fuel injection unit). A remotely mounted operator interface module connected to a power control module is advantageous in that the remotely mounted operator interface module allows an operator to control operation of the power module.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enclose the power source of EVC No. 8305, including the power control module, within a housing, as taught by DE 19641254. It also would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a remotely mounted operator interface module connected to a power control module in the machine of EVC No. 8305.

Regarding claim 13, note that EVC NO. 8305 teaches a fork-lift truck (title).

Regarding claims 13 and 14, the Examiner takes Official Notice that fork-lift vehicles have lifting mechanisms coupled to the vehicle. An example of this may be seen at any warehouse, or wherever fork lifts are used. Fork lifts are well known to be

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used to lift items, often on pallets, off a ground surface to a higher location, as is often necessary in warehouses.

Regarding claim 15, see Figure 5 of DE 19641254.

Regarding claim 18, see the upper portion of column 1 of page 4 of EVC No. 8305.

Regarding claim 19, note that it is considered within the skill level of one of ordinary skill in the art to automate a manual activity. See Section 2144 of the MPEP. Automating "manual" operation of the interface module is advantageous in that the control system of EVC No. 8305 "automatically" controls the fuel cell operation, without monitoring, or intervention by a user.

Examiner's Comments

13. The comments traversing the 112 1st paragraph rejection in the amendment dated 08-20-2003 are considered moot, as the comments are best understood to be directed to an embodiment that includes reference number 22, which is directed toward a non-elected species.

14. The "remarks" in the amendment dated 08-20-2003 discussing the 103 rejections set forth in the Office Action dated 03-20-2003 have been considered, but are moot in view of the amendments to the claims resulting in a new grounds of rejection.

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Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Leifert, Wheat, et al, Reid, et al, Kubush, et al, Durbin, et al, JP 2004-137592 - teach use of fuel cells in a fork lift

16. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bryan Fischmann whose telephone number is (571) 272-6694. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis, can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 5-23-5
BRYAN FISCHMANN
PRIMARY EXAMINER